

**PHYSICS LABORATORY****LIST OF REQUIREMENTS – FOR A CLASS OF 30 STUDENTS****CLASSES VIII – X**

Sr No.	APPARATUS	QUANTITY
	GENERAL APPARATUS	
1	Physical Balance with weight box	3
2	Digital balance with L.C. = 0.1g and max wt. 500g	2
3	Spring balance up to 200gf	30
4	Inclined plane	30
5	Single pulley	60
6	Block of 2 pulley (demo)	2
7	Block of 3 pulley (demo)	3
8	Loose weight 100 gf,50gf,20gf,1gf	30
9	Loose weight 2gf,5gf	60
10	Slotted weight set of 50g each	30
11	Metre rule 50cm	30
12	Metre rule 100cm	30
13	Measuring cylinder 50ml	15
14	Measuring cylinder 100ml,200ml,500ml	10
15	Long jars (glass)	10
16	Beakers (200 ml)	60
17	Test Tube (glass)	30
18	U- tube	30
19	Solid glass cylinder(length = 5 cm, diameter = 0.5 cm appox)	10
20	Solid cube (side = 2.5 cm appox) metallic	30
21	Solid cones small (glass or metallic)	10
22	Relative density bottles ( 25 cc)	30
23	Acid battery hydrometer (demo)	1
24	Lactometer (demo)	1
25	Eureka can(demo)	1

<b>Sr No.</b>	<b>APPARATUS</b>	<b>QUANTITY</b>
26	Fortin's barometer (demo)	1
27	Aneroid Barometer (demo)	1
28	Vernier callipers big one wooden (demo)	1
29	Vernier callipers (L.C. = 0.1 mm)	30
30	Micrometer screw gauge big one (demo)	1
31	Micrometer screw gauge	30
32	Cork pieces various sizes	15
33	Split cork	30
34	Cork borer	1
35	Glass Tubes of various diameters including capillary tubes	50
36	Brass bobs (2cm diameter)	30
37	Retort stands	30
38	Stop watches (demo)	2
39	Stop watches electronics	30
40	Stop clocks (demo)	2
41	Drawing boards to fix A3 size paper easily	30
42	Knife edge to act as fulcrum	30
43	Wooden block rectangular	10
44	Tripod stands	5
45	Wire gauge	5
46	Syringe	5
<b>Light</b>		
47	Pin hole camera (demo)	1
48	Plane mirrors with stand (4cm x 4cm or 4 cm x 2cm) appox	30
49	Plane mirror strip with stand (10 cm x 3 cm)	30
50	Lens or mirror holder	30
51	Object pin with holder	30
52	Concave mirror small( focal length = 15 cm appox)	30
53	Convex mirror big (demo)	5
54	Convex lens ( focal length = 10 to 15 cm appox)	30

<b>Sr No.</b>	<b>APPARATUS</b>	<b>QUANTITY</b>
55	Convex lens ( focal length = 20 cm approx )	30
56	Concave lens (demo)	5
57	Mercury vapour lamp	5
58	Spectrometer (demo)	2
59	Binocular (short range for demo)	1
60	Telescope (short range for demo)	1
61	Magnifying glass big (demo)	2
62	Equilateral triangular glass prism (big)	30
63	Right angle glass prism (big)	5
64	Rectangular glass slab (10 cm x 4 cm x 1 cm)	30
65	Semicircular glass slab (6 cm diameter)	5
66	Laser Jet (3 to 4 laser beams coming out parallel together)	1
67	Newton's colour disc (demo)	1
<b>Magnetism</b>		
68	Alnico bar magnet (5cm x 1 cm x 1cm)	30
69	Magnetic Compass (small)	30
70	Horse shoe magnet Strong	1
71	Magnetic compass big(demo)	5
72	Iron fillings or iron powder	250 g
73	Soft iron bars	5
74	Copper coils co-axial	4
75	Copper wire (2 mm diameter)	25 m
<b>Heat</b>		
76	Gas burner or spirit lamps	5
77	Ring and ball experiment	2
78	Bimetallic strip	2
79	<sup>0</sup> C Thermometer (L.C. = half or one degree)	30
80	<sup>0</sup> F Thermometer (L.C. = one degree)	30
81	Clinical Thermometer <sup>0</sup> F and <sup>0</sup> C	2
82	Calorimeter with stirrer in wooden case	30

<b>Sr No.</b>	<b>APPARATUS</b>	<b>QUANTITY</b>
83	Steam trap	5
84	Copper boilers with outlet	5
85	Convection current apparatus (wooden box with glass window for demo)	1
<b>86Electricity</b>		
86	Pith ball electroscope (demo)	2
87	Gold leaf electroscope (demo)	2
88	Ebonite rods	2
89	Glass Rods	2
90	Fur, wool, silk (cloth pieces)	2 each
91	Voltmeter ( 0 to 3 V) L.C.= 0.05 V	30
92	Ammeter (0 to 3 A) L.C.= 0.05A	30
93	Galvanometer (demo)	5
94	Rheostat 20 $\Omega$	30
95	Plug key	30
96	Resistance wire nichrome $4\Omega\text{m}^{-1}$	50 m
97	Jokey	30
98	Battery eliminator/Bridge rectifier ( up to 20 V supply)	30
99	Dry cell 1.5 V	10
100	Connecting wires 40 cm pieces	150
101	Torch bulb and holder	2
102	Tap key	30
103	Meter bridge (1 m wooden board with 1 m nichrome wire fitted on it)	30
104	Crocodile clip pairs	30
105	Multimeter (demo)	2
106	Electric bell apparatus (demo)	2
107	A.C generator model (demo)	1
108	D.C. motor (demo)	1
109	Induction coil ( up to 2500 V output)	1
<b>Modern Physics</b>		
110	Cathode ray tubes to show properties of cathode rays ( 5 different tubes)	5

<b>Sr No.</b>	<b>APPARATUS</b>	<b>QUANTITY</b>
111	Cathode ray oscilloscope (demo)	1
<b>Sound</b>		
112	Set of tuning forks of various frequencies (demo)	2
113	Bell jar (demo)	2
114	Tall cylindrical jars (demo)	2
115	Metal pipes open at both ends (diameter 3.5 cm approx.) demo	2
116	Wave apparatus to show primary and secondary waves (demo)	2
117	Sonometer (demo)	2